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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,246	04/22/2005	Pierre Gandel	1429-140	7422
24106	7590	10/12/2007		
EGBERT LAW OFFICES 412 MAIN STREET, 7TH FLOOR HOUSTON, TX 77002			EXAMINER TAMAI, KARL I	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 10/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/505,246	<b>Applicant(s)</b> GANDEL ET AL.	
	<b>Examiner</b> Tamai I.E. Karl	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 25-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-32, 34 and 35 is/are rejected.
- 7) ☒ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 25-27, 29, 31, 34 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller (US 6840200). Miller teaches a linear actuator having a brushless multiphase synchronous (permanent magnet or synchronous) motor having a stator (Fig. 3, #66) and a rotor (Fig. 3, #68); a control organ (Fig. 3, #70) having a retracted position and an extended position relative to the electric motor; a driving means 102 for converting a rotational movement of the electric motor into a linear displacement of the control organ so as to drive the control organ from the retracted position toward the extended position over several revolutions of the electric motor, the driving means being reversible; a restoring means (Fig. 3, #78) cooperative directly with the control organ 70 for restoring the control organ to the retracted position (zero position) when a power supply to the electric motor is shut off (col. 6, lines 54-68). Miller teaches a position sensor 80, 82. The drive means including an independent reversible reduction means being the balls and ball nut 102, where the nut and threaded rod are ball nut and threads.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 6840200) in further view of Akagi (US 4742989). Miller teaches every aspect of the invention except a first spring/magnet for controlling the rotation of the rotor and a second spring/magnet directly on the control organ. Akagi teaches a spring for the rotor 19 and a spring for the control organ 5, 7, 10 for providing a return force to prevent an open locking state in case of electrical supply failure. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the actuator of Miller with the first and second restoring means as taught by Akagi to prevent locking in the event of a power failure.

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5. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 6840200) in further view of Okabe (JP 02-303343). Miller teaches every aspect of the invention except the shaft being fixed and the rotor having a threaded nut. Okabe teaches the rotor 4 having a threaded nut 5 for helical movement by engaging a fixed threaded shaft to provide straight linear motion to the control organ 9. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the actuator of Miller fixed threaded shaft and with rotor with a nut to provide straight linear movement as taught by Okabe.

6. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 6840200) in further view of Lamb (US 6005317). Miller teaches every aspect of the invention except the driving means having a roller and cam, the roller being cooperative with the control organ and driven by the cam being driven by the rotor. However, Lamb teaches a linear actuator (Fig. 3, #60) with a roller and cam, the roller (Fig. 7, #70) being cooperative with a control organ (Fig. 3, #78) and driven by a cam (Fig. 3, #63) being driven by the rotor. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ball screw type driving means of Miller in view of the roller cam type driving means as taught by Lamb because it provides an equivalent and equally well known means for converting rotary motion to linear motion that has the added benefits of being economical and able to maintain a preset speed regardless of load variation (Lamb, Col. 1, Lines 52-59).

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7. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US 6840200) in further view of Huber (US 5041748). Miller teaches every aspect of the invention except the position detecting means having a plurality of sensors for detecting magnet poles on the rotor and a linear sensor for the control organ. Huber teaches a plurality of sensors 27(linear), 30(poled rotary), 31(poled rotary) for providing controlled feedback to control the linear actuator. It would have been obvious to one of ordinary skill in the art at the time of the invention to construct the motor Miller with the plurality of poled sensors and the linear sensor to provide precise positive feedback for controlling the linear actuator, as taught by Huber.

#### ***Allowable Subject Matter***

8. Claim 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 33, while prior art does teach some of the material included in the claim, it does not teach the combination including a first and second cam with crossed profiles and rotatable with a different speed.

#### ***Response to Arguments***

9. Applicant's arguments filed 7/30/2007 have been fully considered but they are moot in view of the new grounds of rejection.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (571) 273 - 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai  
PRIMARY PATENT EXAMINER  
October 8, 2007



KARL TAMAI  
PRIMARY EXAMINER